

U.S.S.N. 10/605,363

2

135775XT (GEMS 0221 PA)

In the claims:

1. (Currently Amended) An energy-absorbing device for an imaging tube having a housing, said device comprising an energy-absorbing body fluidically mechanically coupled to said housing and adapted to absorb kinetic energy directed at said housing and generated from the radial release of at least one material fragment within the imaging tube.
2. (Currently Amended) A device as in claim 1 wherein said energy-absorbing body is directly coupled to said housing and receives kinetic energy generated from the radial release of said at least one material fragment from a rotating anode.
3. (Currently Amended) An imaging tube comprising:
a housing;
a rotating target coupled within said housing and generating at least one energy wave; and
at least one energy-absorbing device fluidically mechanically coupled to said housing, separated from an imaging tube frame, and proximate said rotating target, said at least one energy-absorbing device adapted to absorb energy within said at least one energy wave.
4. (Original) An imaging tube as in claim 3 further comprising a frame coupled between said rotating target and said housing and containing at least a portion of said at least one energy wave, said at least one energy-absorbing device absorbing energy within said portion.

U.S.S.N. 10/605,363

3

135775XT (GEMS 0221 PA)

5. (Original) An imaging tube as in claim 3 further comprising a cooling material containing at least a portion of said at least one energy wave, said at least one energy-absorbing device absorbing energy within said portion.

6. (Original) An imaging tube as in claim 3 wherein said at least one energy-absorbing device is within said housing.

7. (Currently Amended) An imaging tube as in claim 3 wherein said at least one energy-absorbing device is fluidically mechanically coupled to said housing and between said rotating target and said housing.

8. (Original) An imaging tube as in claim 3 wherein said at least one energy-absorbing device is toroidal in shape.

9. (Original) An imaging tube as in claim 3 wherein said at least one energy-absorbing device is directly coupled to an inner surface of said housing.

10. (Original) An imaging tube as in claim 3 wherein said at least one energy-absorbing device is formed of a material selected from at least one of a foam, a closed cell foam, a polyolefin foam, a olefin foam, a polymer, and a polyolefin plastic.

11. (Original) An imaging tube as in claim 3 wherein said at least one energy-absorbing device is oriented to receive said at least one energy wave generated from the separation of material fragments from said rotating target.

U.S.S.N. 10/605,363

4

135775XT (GEMS 0221 PA)

12. (Original) An imaging tube as in claim 3 wherein said at least one energy-absorbing device is oriented to receive energy waves emitted within an emission range that is approximately a $\pm 30^\circ$ span from a perpendicular axis, which extends perpendicular to a center axis of rotation of said rotating anode.

13. (Original) An imaging tube as in claim 3 wherein said at least one energy-absorbing device is coupled to said housing using at least one technique selected from bonding, adhering, fastening, brazing, welding, and spot welding.

14. (Original) An imaging tube as in claim 3 further comprising at least one energy-absorbing device coupler coupling said energy-absorbing device to said housing.

15. (Original) An imaging tube as in claim 14 wherein said at least one energy-absorbing device coupler is a coupler selected from at least one of a bracket, a fastener, and a cover.

16. (Original) An imaging tube as in claim 14 wherein said at least one energy-absorbing device coupler is integrally formed as part of the housing.

17. (Original) An imaging tube as in claim 3 wherein said at least one energy-absorbing device comprises an outer skin.

18. (Original) An imaging tube as in claim 3 wherein said at least one energy-absorbing device stabilizes and reduces pressure exertions on said housing.

U.S.S.N. 10/605,363

5

135775XT (GEMS 0221 PA)

19. (Original) An imaging tube as in claim 3 wherein said at least one energy-absorbing device comprises an x-ray opening.

20. (Currently Amended) An imaging system having an imaging tube comprising:

a housing;

a rotating target coupled within said housing and generating at least one kinetic energy wave from the radial release of at least one material fragment within said housing; and

at least one energy-absorbing device fluidically mechanically coupled to said housing, proximate said rotating target, and absorbing energy within said at least one kinetic energy wave, which is directed at said housing.

21. (New) A device as in claim 1 wherein said energy-absorbing device is directly coupled to said housing and receives kinetic energy passed through a fluid between said energy-absorbing device and a rotating target and generated from the radial release of said at least one material fragment from said rotating target.

22. (New) A device as in claim 1 wherein said energy-absorbing device is adapted to absorb pressure exertions on said housing.

23. (New) A method of absorbing kinetic energy within an imaging tube having a housing comprising:
radially releasing at least one material fragment;
mechanically coupling an energy-absorbing body to the housing;

U.S.S.N. 10/605,363

6

135775XT (GEMS 0221 PA)

orienting said energy-absorbing body to receive said at least one material fragment; and

absorbing kinetic energy directed at the housing in response to reception of said at least one material fragment.

24. (New) A method as in claim 23 further comprising receiving said kinetic energy passed through a fluid between said energy-absorbing body and a rotating target and generated from the radial release of said at least one material fragment from said rotating target.

25. (New) A method as in claim 23 further comprising absorb pressure exertions on said housing via said energy-absorbing body.